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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/441,628	11/16/1999	GREGORY H. PETRAK	39661.830001	4716

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EXAMINER

LUONG, VINH

ART UNIT	PAPER NUMBER
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3682

DATE MAILED: 08/18/2003

33

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/441,628

Applicant(s)

PETRAK

Examiner

Luong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6/3/03
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2, and 22-83 is/are pending in the application.
- 4a) Of the above, claim(s) 81-83 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 22-26, 35-39, 42-49, 55-67, and 73-80 is/are rejected.
- 7) ☒ Claim(s) 27-34, 40, 41, 50-54, and 68-72 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11/16/99 is/are a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 1/8/01 is: a) ☒ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of:

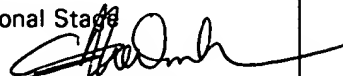
- ☐ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. _____.
- ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 32
- ☐ Interview Summary (PTO-413) Paper No(s). _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☒ Other: Attachment


Vinh T. Luong
Primary Examiner

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1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the previous Office action (Notice of Allowance and Fee(s) Due on April 17, 2003 has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 3, 2003 (Information Disclosure Statement, Paper No. 32) has been entered.
2. Applicant's election without traverse of the species of Figs. 1-15 in Paper No. 6 of parent application is carried over to the instant Request for Continued Examination (RCE) Application.
3. Claims 81-83 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b) as being drawn to a non-elected invention. Election was made **without** traverse in Paper No. 6.
4. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on January 8, 2001 have been approved. A proper drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The correction to the drawings will not be held in abeyance.
5. The drawings are objected to because the drawings must not use different referential numerals to indicate the same thing or *vice versa*, e.g., applicant uses different referential numerals 40 and 64 to indicate the same connector clip as seen in Fig. 1. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

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6. Claim 37 is objected to because of the following informalities: "interior cavity" should have been "said interior cavity." Appropriate correction is required.

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claims 1, 2, 22-26, 35-38, 45-49, 55, 56, 60-67, 73, 74, and 78-80 are rejected under 35 U.S.C. 102(b) as being anticipated by Wing (US Patent No. 4,624,155 cited by applicant).

Regarding claim 1, Wing teaches a park brake cable system comprising:

a brake actuation lever 20;

a connector clip 25 having a first end and a second end, and including a shear member 40, 45 having a shear failure force, positioned between the first end 47 (Fig. 3) and second end (at 13 in Fig. 1, see Att. and claims 1-5) of said connector clip 25;

a brake assembly 11, 12;

a front cable strand 23 having a first and second ends (see Attachment), the first end attached to the brake actuation lever 20, and the second end engaging the shear member 40, 45 on the connector clip 25;

a first rear cable strand 14 having a first end and a second end, the first end attached to the second end 13 of the connector clip 25 and the second end attached to the brake assembly 11;

and

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tensioner means 26-31, etc. (id., line 24 et seq., column 2) attached in a tension force transmitting relationship with the front cable strand 23 and the first rear cable strand 14, creating a continuous connection from the brake actuation lever 20 to the brake assembly 11, 12;

wherein applying tension to the front and first rear cable strands 23 and 14 by the tensioner means 26-31, etc. inherently creates at least the shear failure force to cause the second end of the front cable strand 23 to break the shear member 40, 45 and move to the first end of the connector clip 25, and maintain the continuous connection from the brake actuation lever 20 to the brake assembly 11, 12.

Claim 1 and other claims below are anticipated by Wing under the principle of inherency. The shear member 40, 45 is inherently broken if sufficient shear failure force is applied to it. Note that as a matter of fact, virtually any thing will break if enough pressure or force is applied to it. See “flexible” in *Fredman v. Harris-Hub Co., Inc.* 163 USPQ 397 (DC NIII 1969).

Regarding claim 2, actuating said tensioner means 26-31, etc. inherently develops a first tension level prior to breaking the shear member 40, 45, and a second residual tension level after breaking the shear member 40, 45.

Regarding claim 22, said connector clip 25 includes a main body 26 having an interior cavity (defined by arms 28 and 29, see Att.), and open first and second ends, and wherein at least a portion 50 of the shear member 40, 45 extends across a portion of the interior cavity.

Regarding claim 23, said at least a portion 50 of the shear member 40, 45 is a tab 41.

Regarding claim 24, the tab 41 includes a stress riser 43.

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Regarding claim 25, said tab 41 has a front face and a rear face, the front face: (i) facing said first end of the first rear cable strand 23 (Figs. 2 and 3); and (ii) having a stress riser 43 disposed thereon, and the rear face being opposite said front face. Note that the tab 41 and the riser 43 are formed as one piece, therefore, the riser is disposed *on* the front/rear face of the tab.

Regarding claim 26, said tab 41 has a front face and a rear face, the rear face: (i) facing away from said first end of the first rear cable strand 14 and (ii) having a stress riser 43 disposed thereon, and the front face being opposite said rear face. See Att.

Regarding claim 35, said connector clip 25 comprises an elongated body 28, 29 defining an interior cavity and having first and second ends. (Att.)

Regarding claim 36, the first and second ends of the connector clip 25 are open. (Att.)

Regarding claim 37, at least a portion 40, 50 of the shear member 40, 45 extends into said interior cavity. (Att.)

Regarding claim 38, the portion 40, 50 of the shear member 40, 45 comprises a tab 41.

Regarding claim 45, Wing teaches a park brake cable system comprising:

- a brake actuation lever 20;

- a connector clip 25 having a first connector clip end and a second connector end, and including a shear member 40, 45 having a shear failure force, positioned between the first and second connector ends (id., claims 1-5);

- a brake assembly 11, 12;

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a front cable strand 23 having a first and second front cable ends (Att.), the first front cable end being attached to the brake actuation lever 20, and the second front cable end engaging *one of* the shear member 40, 45 and the first connector clip end;

a first rear cable strand 14 having a first rear cable end and a second rear cable end, the first rear cable end attached to one of the shear member 40, 45 and the second connector clip end, only one of the second front cable end and the first rear cable end being attached to the shear member 40, 45; and

a tensioner means 26-31, etc. attached in a tension force transmitting relationship with the front cable strand 23 and the first rear cable strand 14, creating a continuous connection from the brake actuation lever 20 to the brake assembly 11, 12;

wherein applying tension to the front and first rear cable strands 23 and 14 by the tensioner means 26-31, etc. *inherently* creates at least the shear failure force to cause the one of the second front cable end and the first rear cable end attached to the shear member 40, 45: (i) to break the shear member 40, 45; and (ii) move to one of the first and second connector ends respectively, maintaining a continuous connection from the brake actuation lever 20 to the brake assembly 11, 12.

Regarding claims 46-49, see claims 22-25 above.

Regarding claims 55 and 56, see claims 35 and 2, above.

Regarding claim 60, the park brake cable system further comprises:

an equalizer structure 13, 34; and

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a second rear cable strand 15, the second rear cable strand 15 having first and second ends;

wherein the brake assembly 11, 12 includes (i) a rear left brake 11, and (ii) a rear right brake 12, the first end of the second rear cable strand 15 being attached to the equalizer 13, 34, and the second end of the second rear cable strand 15 being attached to one of the rear left brake and the rear right brake 11 and 12, the second rear cable end of the first rear cable strand 14 being attached to the other of the rear left brake and the rear right brake 11 and 12.

Regarding claim 61, said tensioner means 26- 31, etc. is positioned on said equalizer 13, 34.

Regarding claim 62, said tensioner means 26-31, etc. is positioned *indirectly* on said brake actuation lever 20.

Regarding claim 63, Wing teaches a park brake cable system comprising:

a brake actuation lever 20;

a connector clip 25 having a first end and a second end, and including a shear member 40, 45 having a shear failure force, positioned between the first and second ends of said connector clip 25 (Att.);

a brake assembly 11, 12;

a front cable strand 23 having a first and second ends, the first end attached to the brake actuation lever 20, and the second end engaging the first end on the connector clip 25;

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a first rear cable strand 14 having a first end and a second end, the first end attached to the shear member 40, 45 of the connector clip 25 and the second end attached to the brake assembly 11, 12; and

tensioner means 26-31, etc. attached in a tension force transmitting relationship with the front cable strand 23 and the first rear cable strand 14, creating a continuous connection from the brake actuation lever 20 to the brake assembly 11, 12;

wherein applying tension to the front and first rear cable strands 23 and 14 by the tensioner means 26-31, etc. *inherently* creates at least the shear failure force to cause the first end of the first rear cable strand 14 to break the shear member 40, 45 and move to the second end of the connector clip 25, and maintain the continuous connection from the brake actuation lever 20 to the brake assembly 11, 12.

Regarding claims 64-67, see claims 22-25 above.

Regarding claims 73 and 74, see claims 35 and 2 above.

Regarding claims 78-80, see claims 60-61 above.

9. Claims 39, 42-44, 57-59, and 75-77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wing.

Regarding claim 39, the second end of the front cable strand 23 has a bead 48 attached thereto, and wherein a width of the bead 48 is greater than a diameter of the front cable strand 23 to which the bead 48 is attached.

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Wing teaches the bead for the front cable strand. However, Wing does not teach the bead for the first rear cable strand 14. Wing taught or suggested the bead (48) for the cable strand (23) in order to attach the cable strand to other structure (*e.g.*, the element 45).

It would have been obvious to one having ordinary skill in the art to form the bead for Wing's first rear cable strand 14 as taught or suggested by Wing in order to attach the rear cable strand 14 to the other structure, such as, the element 13 of the connector clip 25.

Regarding claims 42-44, 57-59, and 75-77, Wing teaches the invention substantially as claimed. However, Wing does not teach the claimed dimensions, such as, the first tension level ranges from 160 to 250 pounds, the second residual tension level ranges from 90 to 130 pounds, and the distance the second end of the front cable strand moves ranges from 13 to 25 millimeters.

It is common knowledge in the art to choose the ranges as claimed in order to improve the movements of the brake cable system. See legal precedents about optimization of ranges in MPEP 2144.05 and changes in size/proportion in MPEP 2144.04.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to choose the ranges as claimed in order to improve the movements of the brake cable system as suggested by common knowledge in the art.

10. Claims 27-34, 40, 41, 50-54, and 68-72 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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11. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

12. Applicant's arguments filed March 24, 2003 (Paper No. 25) have been fully considered but they are not persuasive.

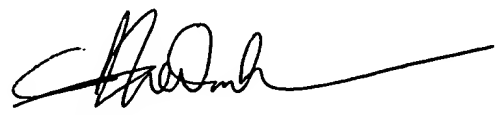
Applicant stated on pages 4 and 5 of Paper No. 25 that a revised Fig. 1 was submitted with Paper No. 25. However, said revised Fig. 1 has not been received. In addition, applicant's arguments with respect to claims 1, 2, and 22-80 have been considered but are moot in view of the new ground(s) of rejection.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Luong whose telephone number is (703) 308-3221. The examiner can normally be reached on Monday-Thursday from 8:30 AM EST to 7:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bucci, can be reached on (703) 308-3668. The fax phone number for this Group is (703) 305-7687. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1113.

Luong

August 15, 2003



Vinh T. Luong
Primary Examiner

Application/Control Number: 09/441,628

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ATTACHMENT

